What is claimed is:

1. An industrial robot, comprising:

(a) a robot body;

(b) a manipulator to control the operation of said robot body;

(c) a control device to control said manipulator;

(d) a first path disposed between said manipulator and said control device; and

(e) a second path disposed between a commercial power source and said manipulator.

2. The industrial robot of claim 1,

wherein a voltage supplied from said commercial power source in said second path is applied to said manipulator, and then said robot body becomes freely movable without being controlled by said manipulator.

3. The industrial robot of claim 1,

wherein said manipulator includes a motor to drive said robot body,

a brake to brake the motor, and

said motor has a function to drive said manipulator, and said brake has a function to brake said motor.

4. The industrial robot of claim 3,

wherein the voltage supplied from said commercial power source in said second path is applied to said manipulator, thereby releasing said brake, and then said robot body becomes freely movable.

5. The industrial robot of claim 1, further comprising:

(f) a voltage transformer disposed between said commercial power source and said manipulator in said second path,

wherein said voltage transformer serves to transform the voltage supplied from said commercial power source to a voltage for releasing said brake.

6. The industrial robot of claim 3,

wherein said manipulator further comprises a brake releasing device to release said brake, and

when said brake is released, said robot body becomes freely movable.

7. The industrial robot of any one of claims 1 to 6,

wherein said second path is disposed so as to be freely connectable to said manipulator.

8. The industrial robot of claim 5, further comprising:

(g) a switch device disposed between said control device

and said voltage transformer,

wherein said switch device serves to switch said first path,

when said first path is switched on, said brake is controlled by said control device and becomes released, and

when said first path is switched off, said brake becomes released due to the voltage transformed by said voltage transformer in said second path.

9. A method of operating an industrial robot, comprising the steps of:

(a) feeding a robot system,

said robot system comprising

a robot body,

a manipulator to control the operation of said robot body,

a control device to control said manipulator,

a first path disposed between said manipulator and said control device, and

a second path disposed between a commercial power source and said manipulator;

(b) operating said manipulator by controlling said control device by said first path, thereby controlling the operation of said robot body; and

(c) freely moving said robot body without being controlled by said manipulator, applying a voltage from said commercial

power source to said manipulator when it is unable to control said control device by said first path.

10. The method of operating an industrial robot of claim 9,

wherein said manipulator includes a motor to drive said robot body, and a brake to brake said motor;

the step (b) includes a step of controlling said control device by said first path, and operating said manipulator, while holding said brake, thereby controlling the operation of said robot body; and

in the step (c), when it is unable to control said control device by said first path, a voltage is supplied from said commercial power source to said brake, thereby releasing said brake, and then said robot body becomes freely movable without being controlled by said manipulator.

11. The method of operating an industrial robot of claim 10,

wherein said robot system further comprises a voltage transformer disposed between said commercial power source in said first path and said manipulator, and

in the step (c), when it is unable to control said control device by said first path, the voltage supplied from said commercial power source is transformed by said voltage

transformer to a voltage for releasing said brake, and the transformed voltage is applied to said brake, and then said robot body becomes freely movable without being controlled by said manipulator.

12. The method of operating an industrial robot of claim 10,

wherein said robot system further comprises a switch device disposed between said control device and said manipulator;

in step (b), when said switch device switches said first path so that the first path is electrically connected to said manipulator, said brake is controlled by said control device and becomes released, and then said robot body becomes freely movable, and

in step (c), when said switch device switches said first path so that the first path is switched off, said brake becomes released due to the voltage supplied from said commercial power source in said second path, and then said robot body becomes freely movable.

13. The method of operating an industrial robot of claim 10,

wherein said manipulator further includes a brake releasing device to release said brake, and

in the step (b) and step (c), said brake is released, and

thereby, said robot body becomes freely movable.